Welcome to Crown! Whether you're a first-time buyer or a long term customer, our amplifiers, microphones and control systems are designed to solve your audio problems and delight you with the finest in sound.

For more than 50 years we've been inventing, making, and selling (and *occasionally* servicing) audio equipment that has established a worldwide reputation for its distinctive blend of audible excellence, innovation, and reliability.

Although it was never true that Crown personnel built electronics each morning and tilled the soil each afternoon (a rumor which we think grew out of our location close to Amish farms in northern Indiana), it has always been true that the company has held on to its focus of personal and corporate integrity as the foundation of the value we intend for our customers.

In the 1950s and 1960s, Crown tape recorders were known for their excellence in concert and studio recordings. In 1967, the DC-300 of legend, the world's first high-purity, high-power, high-reliability solid state amplifier, opened the illustrious history of Crown power. Our newest K Series and CE Series amplifiers today proudly extend an unbroken line of leadership. Throughout the roller-coaster growth of Rock n' Roll, Country, and Gospel music, our amplifiers have powered the premier studios, stages and stadiums of the world.

Our Microphone Division began with the introduction of the unique PZM boundary microphone technology. Since then, the Phase Coherent Cardioid (PCC), the CM-311 Headworn Differoid, the CM-700 studio microphone, and our newest, the MB (Mini Boundary) Series, have all established themselves among the finest microphones in audio.

Crown's IQ System pioneered the powerful concept of computer control of audio systems, and continues to lead in the design of exciting, user-friendly software and hardware.

We've grown along the way from a remodeled poultry facility (in other words, a chicken coop) to a sparkling 225,000 square foot complex that has won awards for environmentally-friendly manufacturing.

We take pride in the contributions we've been able to make over the last 50 years, but we also think there's a great deal more to be accomplished, and we trust that you'll benefit from that.

Here's to a long and beautiful friendship.

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crown

CE Series
Crown Performance

Our new CE Series amplifiers bring Crown's outstanding performance and reliability to a very affordable price range.

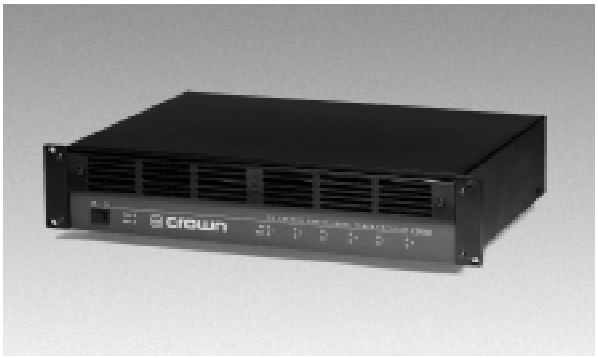
CE Series amplifiers are professional tools designed and built for professional use. Engineered and manufactured by the same teams who build our acclaimed Macro-Tech and K Series amps, the new CE 1000 and CE 2000 have the rugged heart and soul that have characterized our amplifiers for over 30 years. You'll find front-panel level controls, useful function indicators, proportional fan-assisted cooling, short circuit protection and more. And, to make the amplifier more adaptable to the way you work, we've provided a new SST (System Solution Topologies) modular system which allows you to customize the amplifier with true professional features such as optional fixed-point crossover cards. Add in features like Neutrik® Speakon connectors for fast, secure hookup, an auxiliary output jack for attaching a remote fault indicator and an IEC detachable power cord, and these amps are ready for serious business.

The result is an amplifier capable of chest-thumping lows that easily handles 2-ohm loads and runs longer under difficult conditions than other competitive amps. Plus, your investment in a CE amplifier is backed by Crown's unequaled Three-Year, No-Fault, Full Warranty.

Signal-to-Noise: (A-weighted) Better than 105 dB below rated power.
Input Impedance: 20 k ohms balanced and 10 k ohms unbalanced.
Controls: Power (with silent turn-on), Channel 1 and 2 detented level controls on front panel, Circuit breaker (front panel), Stereo or Bridge-Mono switch, two-position input sensitivity switch (1.4 V for full output or 26 dB gain).
Connectors:
- **Inputs:** Three balanced input options per channel: Neutrik combo (¼-in. TRS/XLR) and barrier block.
- **Outputs:** Neutrik NL4 Speakons (one per channel). Additional barrier block or 5-way binding post (optional).

Total Harmonic Distortion (THD): 1 kHz rated power, 0.5% or less true THD.
Intermodulation Distortion (IMD): (60 Hz and 7 kHz @ 4:1) Less than 0.1% from rated power to 35 dB below rated power at 8 ohms.
Load Impedance: Rated for 2 to 8 ohms in Dual and 4 to 16 ohms in Bridge-Mono. Safe with all types of loads.
Output Power @ 1 kHz at Rated THD:
- **Dual Mode per channel with both channels driven:**
  - **CE 1000:** 560 W-2 Ω, 450 W-4 Ω, 275 W- 8 Ω.
  - **CE 2000:** 975 W-2 Ω, 660 W-4 Ω, 400 W-8 Ω.
- **Bridge-Mono Mode:**
  - **CE 1000:** 1,100 W-4 Ω, 900 W-8 Ω.
  - **CE 2000:** 1,950 W-4 Ω, 1,320 W-8 Ω.

CP660
Six Channel Flexibility



The CP660 is a six-channel amplifier that will give you super flexibility and the best watts-to-dollar ratio around. With six independent channels, the CP660 takes the place of three, two-channel amplifiers, yet still fits in a standard two rack space chassis. It's ideal for a variety of surround-sound uses, as well as many paging, zoning, and background music applications. Plus, when you need it, you can easily bridge any pair of channels for double the power.

Rear-mounted controls and connectors on the CP660 minimize the chance of unauthorized changes and provide a clean look to the front panel. A super-quiet, variable-speed fan provides just the right amount of cooling only when it's needed.

Signal-to-Noise: (A-weighted) Better than 100 dB below rated power.
Input Impedance: 20 k ohms balanced and 10 k ohms unbalanced.
Controls: Front panel rocker switch for power on/off, back panel level control for each channel, three back panel 2-position Dual/Mono switches (Ch. 1 & 2, Ch. 3 & 4, Ch. 5 & 6).
Connectors:
- **Inputs:** Balanced three-terminal barrier block connectors.
- **Outputs:** Two sets of 5-way, color-coded binding posts for each channel (European models do not accept banana plugs).

Total Harmonic Distortion (THD): 1 kHz rated power, 0.3% or less true THD
Intermodulation Distortion (IMD): (60 Hz and 7 kHz @ 4:1) Less than 0.25% from rated power to 35 dB below rated power at 8 ohms.
Load Impedance: Rated for 4 to 8 ohms in Dual and 8 ohms in Bridge-Mono mode.
Output Power @ 1 kHz at Rated THD:
- **Dual Mode, per channel with all channels driven:** 75 W-4 Ω, 60 W-8 Ω.
- **Bridge-Mono Mode, six channels bridged, three loads:** 150 W each-8 Ω.

K Series
Radically Different

Crown's K Series amplifiers deliver more power and sound while using less energy than any amplifier on the planet. And it's all in a durable, maintenance-free package that's just two rack spaces high.

Using new, patented Balanced Current Amplifier (BCA®) circuitry, K Series amplifiers give you massive amounts of power while generating just one-tenth the heat of conventional amplifiers. In fact, the powerful K2 amplifier can deliver an amazing 1,250 watts per channel into 2 ohms (and that's a very solid 2 ohms)!

Because of their incredible efficiency, K Series amplifiers require no internal cooling fan and feature a closed chassis. Of course, no fan means no fan noise. In addition, the closed chassis makes these amplifiers virtually immune to environmental problems such as dust, cigarette smoke, stage fog and spilled liquids. In practical, everyday terms, the K Series amplifiers are essentially maintenance-free. As with all convection-cooled amplifiers, varying operating levels and loads may require additional air movement in high ambient temperature conditions.

K Series amplifiers are so energy efficient—more than twice that of conventional switching amps—they require significantly less energy to deliver their massive power into virtually any load, no matter how difficult. In addition, each amplifier is equipped with a "green" circuit that further reduces energy use during idle periods. Energy draw is so low—only 12 watts or less—the amplifier may be kept in a continual ready state at minimal cost. This efficiency means you'll realize significant savings over the life of the amplifier, reducing the cost of ownership, as well as enabling more K Series amplifiers to be plugged into a single AC circuit, reducing installation costs.

With an extremely rugged, one-piece, cast aluminum front panel, the K Series design allows the toroid transformer to move further forward for an improved center of gravity. This results in better balance and handling, while creating less stress on rack rails when transporting.

Best of all, the K Series delivers all of the superior sound that Crown is known for—tight, chest-slamming low end, crystal-clear highs and a well-defined midrange. Several exceptional product reviews concur that the K Series delivers fantastic sound. And with a choice of colors to choose from that is sure to please a wide range of tastes, the K Series stands above the rest as the performance leader in convection-cooled designs.

The K Series is available in many different colors

Signal-to-Noise: (A-weighted) Better than 100 dB below rated power.
Input Impedance: 20 k ohms balanced and 10 k ohms unbalanced.
Controls: Enable (with silent turn-on), Channel 1 and 2 calibrated rotary level controls on front panel, Dual or Bridge-Mono switch, "Y" input on/off switch, two-position input sensitivity switch (1.4 V for full output or 26 dB gain).
Connectors:
- **Inputs:** Balanced ¼-in. TRS and XLR connectors for each channel.
- **Output:** One set of 5-way, color-coded binding posts for each channel (European models do not accept banana plugs).

Total Harmonic Distortion (THD): 1 kHz rated power, 0.1% or less true THD
Load Impedance: Rated for 2 to 8 ohms in Dual, 4 to 8 ohms in Bridge-Mono. Safe with all types of loads.
Output Power @ 1 kHz at Rated THD:
- **Dual Mode, per channel with both channels driven:**
  - **K1:** 750 W-2 Ω, 550 W-4 Ω, 350 W-8 Ω.
  - **K2:** 1,250 W-2 Ω, 800 W-4 Ω, 500 W-8 Ω.
- **Bridge-Mono Mode:**
  - **K1:** 1,500 W-4 Ω, 1,100 W-8 Ω.
  - **K2:** 2,500 W-4 Ω, 1,600 W-8 Ω.

Macro-Tech® Series
Advanced Reinforcement

Macro-Tech Series amplifiers deliver superior sonic accuracy and enormous amounts of power from a low-profile design—perfect for touring and fixed installations. They offer a combination of features and flexibility not available from any other amplifier, including three separate power supplies, P.I.P. compatibility, XLR connectors, detented level controls and more.

Crown's patented ODEP® (Output Device Emulated Protection) protection and Grounded Bridge output circuitry provide incredible reliability while at the same time virtually eliminating distortion. ODEP indicators on the front panel show the reserve thermodynamic headroom for each channel.

Dual, Bridge-Mono or Parallel-Mono modes allow you to optimize power to your loads, while IOC® (Input/Output Comparator) circuitry acts as a supersensitive distortion meter, providing you with proof of distortion-free performance.

P.I.P.® (Programmable Input Processor) modules offer an added edge, supplying an incredible array of functions for specialized applications.

Signal-to-Noise: (A-weighted) Better than 105 dB below rated power.
Input Impedance: 20 k ohms balanced and 10 k ohms unbalanced.
Controls: Enable, Channel 1 and 2 detented level controls on front panel, Dual, Bridge-Mono, Parallel-Mono switch, ground lift switch, three-position input sensitivity switch (0.775 V or 1.4 V for full output or 26 dB gain).
Connectors:
- **Inputs:** Balanced ¼-in. TRS connectors on chassis, XLR connectors on standard P.I.P. module.
- **Output:** One set of 5-way, color-coded binding posts for each channel (European models do not accept banana plugs).
- **P.I.P.:** Standard P.I.P. connector.

Total Harmonic Distortion (THD): 1 kHz rated power, 0.05% or less true THD.
Intermodulation Distortion (IMD): (60 Hz and 7 kHz @ 4:1) Less than 0.05% from rated power to 35 dB below rated power at 8 ohms.
Load Impedance: Rated for 2 to 8 ohms in Dual, 4 to16 ohms in Bridge-Mono, 1 to 4 ohms in Parallel-Mono mode. Safe with all types of loads.
Output Power @ 1 kHz at Rated THD:
- **Dual Mode, per channel with both channels driven:**
  - **MA-600:** 400 W-2 Ω, 325 W-4 Ω, 225 W-8 Ω.
  - **MA-1200:** 675 W-2 Ω, 480 W-4 Ω, 310 W-8 Ω.
  - **MA-2400:** 1,050 W-2 Ω, 800 W-4 Ω, 520 W-8 Ω.
- **Bridge-Mono Mode:**
  - **MA-600:** 750 W-4 Ω, 655 W-8 Ω.
  - **MA-1200:** 1,300 W-4 Ω, 970 W-8 Ω.
  - **MA-2400:** 2,070 W-4 Ω, 1,585 W-8 Ω.

MA-600
MA-1200
MA-2400

THX

Macro-Tech Series
Amplifiers for Biamped Systems

Our unique Macro-Tech 24x6 and 36x12 amplifiers provide practical solutions for biamplified system applications such as stage monitors. Each amp features a high- and medium-power channel in a single, low-profile unit. Both amps have separate power supplies which allow each channel to be treated as its own amplifier. Providing tremendous power to your bass cabinets, channel 1 of the Macro-Tech 24x6 has the same power and specifications as our Macro-Tech 2400, while the Macro-Tech 36x12 has the same power as our Macro-Tech 3600VZ®. Channel 2 of each amp drives horns and other high-frequency transducers with the power of the Macro-Tech 600 and 1200 respectively.

Signal-to-Noise: (A-weighted) Better than 105 dB below rated power.
Input Impedance: 20 k ohms balanced and 10 k ohms unbalanced.
Controls: Enable, Channel 1 and 2 detented level controls on front panel, ground lift switch, three-position input sensitivity switch (0.775 V or 1.4 V for full output or 26 dB gain).
Connectors:
- **Inputs:** Balanced ¼-in. TRS and XLR connectors for each channel on standard P.I.P. module.
- **Outputs:** One set of 5-way, color-coded binding posts for each channel (European models do not accept banana plugs). MA-36x12: Two sets of 5-way, color-coded binding posts for the high-power channel and one set of 5-way, color coded binding posts for the medium power channel.
- **P.I.P.:** Standard P.I.P. connector.

Total Harmonic Distortion (THD): 1 kHz rated power, 0.05% or less true THD
Intermodulation Distortion (IMD): (60 Hz and 7 kHz @ 4:1) Less than 0.05% from rated power to 35 dB below rated power at 8 ohms.
Load Impedance: Rated for 2 to 8 ohms. Safe with all types of loads.
Output Power @ 1 kHz at Rated THD:
- **Dual Mode, per channel with both channels driven:**
  - **MA-24x6:**
    Channel 1: 1,050 W-2 Ω, 800 W-4 Ω, 520 W-8 Ω.
    Channel 2: 400 W-2 Ω, 325 W-4 Ω, 225 W-8 Ω.
  - **MA-36x12:**
    Channel 1: 1,800 W-2 Ω, 1,565 W-4 Ω, 1,120 W-8 Ω.
    Channel 2: 675 W-2 Ω, 480 W-4 Ω, 310 W-8 Ω.

Macro-Tech VZ® Series

Advanced VZ Technology

Crown's patented variable impedance (VZ) technology permits the Macro-Tech 3600VZ and the Macro-Tech 5000VZ amplifiers to dynamically adapt to both signal and load requirements in real time. This provides the best power match to the widest range of loads. Our innovative technology also permits us to pack large amounts of power into a compact package while achieving ultra-low distortion and without generating excessive heat.

The Macro-Tech 3600VZ packs 3,600 watts into a mere 3.5 inches of vertical rack space. The Macro-Tech 5000VZ packs an incredible 5,000 watts into just 5.25 inches of vertical rack space. And because they're Macro-Techs, both VZ amplifiers provide all the features found in other Macro-Tech amplifiers, including separate high-voltage power supplies, detented controls, P.I.P. expandability and comprehensive status indicators.

The Macro-Tech 5000VZ also includes additional features which expand its power and versatility. Among these are a VZ mode switch, a clip-eliminating compressor circuit (defeatable), and a loudspeaker offset integration (LOI) circuit. The Macro-Tech 5000VZ's universal power supply also allows it to be adapted quickly and easily to available voltages around the world.

With all these features, the Macro-Tech 3600VZ and 5000VZ are two of the best values in amplifiers today, with the highest power for their size, weight and price.

MA-5000VZ

Macro-Tech VZ Series continued

Macro-Tech 3600VZ Specifications

Signal-to-Noise: (A-weighted) Better than 105 dB below rated power.
Input Impedance: 20 k ohms balanced and 10 k ohms unbalanced.
Controls: Enable, Channel 1 and 2 detented level controls on front panel, Dual, Bridge-Mono, Parallel-Mono switch, ground lift switch, three-position input sensitivity switch (0.775 V or 1.4 V for full output or 26 dB gain).
Connectors:
Inputs: Balanced ¼-in. TRS on chassis, XLR connectors for each channel on standard P.I.P. module.
Outputs: Two sets of 5-way, color-coded binding posts for each channel (European models do not accept banana plugs).
P.I.P.: Standard P.I.P. connector.
Total Harmonic Distortion (THD): 1 kHz rated power, 0.05% or less true THD
Intermodulation Distortion (IMD): (60 Hz and 7 kHz @ 4:1) Less than 0.05% from rated power to 35 dB below rated power at 8 ohms.
Load Impedance: Rated for 2 to 8 ohms in Dual and 4 to 16 ohms in Bridge-Mono and 1 to 4 ohms in Parallel-Mono mode. Safe with all types of loads.
Output Power @ 1 kHz at Rated THD:
Dual Mode, per channel with both channels driven:
1,800 W-2 Ω, 1,565 W-4 Ω, 1,120 W-8 Ω.
Bridge-Mono Mode:
3,505 W-4ý, 3,140 W-8 Ω.

Macro-Tech 5000VZ Specifications

Signal-to-Noise: (A-weighted) Better than 105 dB below rated power.
Input Impedance: 10 k ohms balanced and 5 k ohms unbalanced.
Controls: Enable (with silent turn-on), Channel 1 and 2 detented level controls on front panel, Dual, Bridge-Mono, Parallel-Mono switch, ground lift switch, 3 position back-panel input sensitivity switch for each channel (0.775 V or 1.4 V for full output or 26 dB gain), Loudspeaker Offset Integration switch, compressor switch (fast, off, slow) and VZ mode switches.
Connectors:
Inputs: Balanced ¼-in. TRS and XLR connectors on standard P.I.P. module.
Outputs: Multipurpose high current output block for each channel. (Accepts banana plugs and spade terminals; European models do not accept banana plugs.)
P.I.P.: Standard P.I.P./PIP2 compatible.
Total Harmonic Distortion (THD): 1 kHz rated power, 0.05% or less true THD.
Intermodulation Distortion (IMD): (60 Hz and 7 kHz @ 4:1) Less than 0.05% from rated power to 35 dB below rated power at 8 ohms.
Load Impedance: Rated for 2 to 8 ohms in Dual, 4 to 16 ohms in Bridge-Mono, 1 to 4 ohms in Parallel-Mono mode. Safe with all types of loads.
Output Power @ 1 kHz at Rated THD:
Dual Mode, per channel with both channels driven:
2,500 W-2 Ω, 2,000 W-4 Ω, 1,300 W-8 Ω.
Bridge-Mono Mode:
5,000 W-4 Ω, 4,000 W-8 Ω.

Com-Tech® 10 Series

The Commercial Standard

The Com-Tech® 10 Series amplifiers have been designed from the ground up exclusively for the professional sound contractor with added features that enhance reliability and wide-ranging capabilities.

New features in the CT-10 Series include remote power on/off circuit utilizing the new Crown RSVP (Remote Switching Voltage Provider). The RSVP lets you control the power up/power down function of your CT-10 Series amplifiers from across the room or the stadium. Using standard telephone wire and RJ-11 connectors, the remote power on/off feature offers control via an IQ® aux port or a simple, contact closure, eliminating the need for an expensive external sequencing devices.

Plus, the Crown's newly developed "Quad-Mute" protection circuit provides the ultimate in load protection.

Efficient heat sinks and a fully proportional-speed fan provide fast and even heat dissipation for extra amplifier protection and extended component life. Crown's new "Soft-Start" current-limiting circuit incorporates a voltage ramp-up to eliminate large in-rush currents. Finally, input and output connections now feature barrier block connectors, with hands-free test points incorporated in the input connector.

P.I.P. expandability is still standard but has been revised to accept the enhanced PIP2™ modules. New PIP2 accessory modules include the P.I.P.-SLM, which provides internal wide-band load and current monitoring, enabling you to verify the load characteristics for real-time testing and system analysis.

CT-10 Series amplifiers still give you more options for delivering their massive power than any other amp. Our unique power supply allows you to determine how to best configure your amp. You can run one channel at 70 volts and use the other to drive a 4- or 8-ohm load. Just a flip of a switch quickly reconfigures your amplifier.

All CT-10's feature a design that permits constant 70-volt output without the need for expensive and bandwidth-limiting output transformers. With the CT-10 amplifiers your installations will cost less, take less time, and sound great. For long cable runs, Com-Techs can also be configured in a 140-volt Bridge-Mono mode which can reduce your wiring costs.

CT-10 amplifiers also provide vital operating information, at a glance, with a comprehensive display of indicators on the front panel. These indicators make it quick and easy to verify the proper operation of the amplifier. Indicators include ODEP, IOC and SPI (Signal Process Indicator). Controls are located on the back panel to prevent tampering.

Each CT-10 Series amplifier is still backed by the best support in the business including Crown's exclusive Three-Year, No-Fault, Full Warranty and Com-Tech Installation Protection Plan. In a profession where unplanned service calls can quickly wipe out profits, the CT-10 is designed to be more reliable, making it by far the most dependable amplifier you can install. All CT-10 amplifiers are UL listed for USA and Canada commercial audio applications.

Signal-to-Noise: (A-weighted) Better than 105 dB below rated power.
Input Impedance: 20 k ohms balanced and 10 k ohms unbalanced.
Controls: Three-position power switch (Local/Off/Remote), Channel 1 and 2 detented rear-mounted level controls, Dual, Bridge-Mono, Parallel-Mono switch, two-position output mode switch for each channel (8/4-ohm, 70-volt), three-position input sensitivity switch (0.775 V 8/4 ohm, or 1.4 V 70 V mode for full output or 26 dB gain).
Connectors:
- **Inputs:** Balanced three-terminal barrier block on standard PIP2 module for each channel with test points.
- **Outputs:** Barrier block with two-terminal connections for each output channel.
- **P.I.P.:** Standard PIP2 connector.
- **Remote:** RJ-11 jack for RSVP input.

Total Harmonic Distortion (THD): 1 kHz rated power, 0.05% or less true THD.
Intermodulation Distortion (IMD): (60 Hz and 7 kHz @ 4:1) Less than 0.05% from rated power to 35 dB below rated power at 8 ohms.
Load Impedance: Rated for 4 to 8 ohms in Dual, 8 to 16 ohms in Bridge-Mono, 2 to 4 ohms in Parallel-Mono mode. Safe with all types of loads.
Output Power @ 1 kHz at Rated THD:

Dual Mode, per channel with both channels driven:
- **CT-210:** 150 W-4 Ω, 110 W-8 Ω, 110 W-70 V line.
- **CT-410:** 240 W-4 Ω, 220 W-8 Ω, 225 W-70 V line.
- **CT-810:** 490 W-4 Ω, 305 W-8 Ω, 460 W-70 V line.
- **CT-1610:** 870 W-4 Ω, 540 W-8 Ω, 960 W-70 V line.

Bridge-Mono Mode:
- **CT-210:** 300 W-8 Ω, 205 W-140 V line.
- **CT-410:** 475 W-8 Ω, 455 W-140 V line.
- **CT-810:** 975 W-8 Ω, 920 W-140 V line.
- **CT-1610:** 1,745 W-8 Ω, 1,805 W-140 V line.

CT-410
CT-810

AMPLIFIERS

D Series

The Long-Term Favorites

The D-45 and D-75A are the latest in a long line of D Series amplifiers and are perfect for moderate power applications such as recording or broadcast studio nearfield monitoring, video suite audio monitoring, or recording/broadcast headphones.

Crown's AB+B circuitry ensures efficient use of output transistors while incorporating protection against shorted, open, mismatched or low-impedance loads.

Designed, built and carefully checked to ensure reliable operation with a wide variety of loads, Crown D Series amplifiers are convection cooled. Their high reliability is particularly important in reducing maintenance costs.

D Series amplifiers are covered by Crown's comprehensive Three-Year, No-Fault, Full Warranty. This warranty protects your investment no matter what happens to your amp.

Signal-to-Noise: (A-weighted) Better than 110 dB below rated power.
Input Impedance: 20 k ohms balanced and 10 k ohms unbalanced.
Controls: Power, Channel 1 and 2 controls on front-panel, internal dual/mono jumper.
Connectors:
- **Inputs:** Balanced Neutrik® Combo (¼-in. TRS/XLR) connector for each channel.
- **Outputs:** Four-terminal barrier block and stereo headphone jack.

Total Harmonic Distortion (THD): 1 kHz rated power, 0.05% or less true THD.
Intermodulation Distortion (IMD): (60 Hz and 7 kHz @ 4:1) Less than 0.05% from rated power to 35 dB below rated power at 8 ohms.
Load Impedance: Rated for 4 to 16 ohms in Dual, 8 to16 ohms in Bridge-Mono. Safe with all types of loads.
Output Power @ 1 kHz at Rated THD:
- **Dual Mode, per channel with both channels driven:**
  - **D-45:** 35 W-4 Ω, 25 W-8 Ω.
  - **D-75A:** 55 W-4 Ω, 40 W-8 Ω.
- **Bridge-Mono Mode:**
  - **D-45:** 70 W-8 Ω.
  - **D-75A:** 110 W-8 Ω.

Studio Reference™ Series

The Industry Reference

Engineered for the critical demands of recording studios , the Studio Reference Series amplifiers are more than a benchmark for precision amplifiers. They're an investment in long-term performance that anticipates and achieves the next step in professional audio demanded by studios and serious audiophiles.

Featuring an extremely wide dynamic range capable of accurately reproducing digital recordings combined with super-low harmonic and intermodulation distortion, these amps provide the best transfer function in the business. They also feature a damping factor of better than 20,000 for absolute speaker control with a tight, well-defined low end.

Sonic accuracy is just one of the advantages of the Studio Reference. Patented ODEP circuits detect and compensate for any demanding load condition, while P.I.P. expansion permits easy customization with add-on electronics.

Signal-to-Noise: (A-weighted) Studio Reference 1: Better than 120 dB below rated power, Reference 2: Better than 117 dB below rated power.
Input Impedance: 10 k ohms balanced and 5 k ohms unbalanced.
Controls: Enable (with silent turn-on), Channel 1 and 2 level controls on front panel, Dual, Bridge-Mono, Parallel-Mono switch, ground lift switch, three-position input sensitivity switch (0.775 V or 1.4 V for full output or 26 dB gain), dynamic range/level meter switch, meter on/off switch.
Connectors:
- **Inputs:** Balanced ¼-in. TRS on chassis and XLR connectors for each channel on standard P.I.P. module.
- **Outputs:** One set of 5-way, color-coded binding posts for each channel (European models do not accept banana plugs).
- **P.I.P.:** Standard P.I.P. connector.

Total Harmonic Distortion (THD): 1 kHz rated power, 0.02% or less true THD.
Intermodulation Distortion (IMD): (60 Hz and 7 kHz @ 4:1) Less than 0.005% from rated power to 35 dB below rated power at 8 ohms.
Load Impedance: Rated for 4 to 8 ohms in Dual, 8 to 16 ohms in Bridge-Mono, 2 to 4 ohms in Parallel-Mono mode. Safe with all types of loads.
Output Power @ 1 kHz at Rated THD:
- **Dual Mode, per channel with both channels driven:**
  - **Studio Reference 1:** 1,190 W-4 Ω, 800 W-8 Ω.
  - **Studio Reference 2:** 565 W-4 Ω, 360 W-8 Ω.
- **Bridge-Mono Mode:**
  - **Studio Reference 1:** 2,375 W-8 Ω.
  - **Studio Reference 2:** 1,145 W-8 Ω.

Reference 1

Power-Tech™ Series

Pro Performance

Ideal for the professional musician, the Power-Tech Series amplifiers present an unmatched package of performance, reliability and value. These amplifiers feature recessed level controls on the front panel along with SPI/IOC indicators for quick and accurate performance information. ODEP circuitry protects the amplifier under the most severe conditions, while DC and fault protection safeguard your investment should potentially damaging conditions occur.

Power-Tech Series amplifiers include three input sensitivity settings, providing the versatility for any application from sound reinforcement to electronic instruments. The Power-Tech series provides you with input choices using our optional MT-XLR and MT-BB modules.

Signal-to-Noise: (A-weighted) Better than 105 dB below rated power.
Input Impedance: 20 k ohms balanced and 10 k ohms unbalanced.
Controls: Enable (with silent turn-on), Channel 1 and 2 detented level controls on front panel, Dual, Bridge-Mono, Parallel-Mono switch, three-position input sensitivity switch (0.775 V or 1.4 V for full output or 26 dB gain).
Connectors:
- **Inputs:** Balanced ¼-in. TRS connector for each channel.
- **Output:** One set of 5-way, color-coded binding posts for each channel (European models do not accept banana plugs).

Total Harmonic Distortion (THD): 1 kHz rated power, 0.05% or less true THD.
Intermodulation Distortion (IMD): (60 Hz and 7 kHz @ 4:1) Less than 0.05% from rated power to 35 dB below rated power at 8 ohms.
Load Impedance: Rated for 4 to 8 ohms in Dual, 8 to 16 ohms in Bridge-Mono, 2 to 4 ohms in Parallel-Mono. Safe with all types of loads.
Output Power @ 1 kHz at Rated THD:
- **Dual Mode, per channel with both channels driven:**
  - **PT-1:** 305 W-4 Ω, 220 W-8 Ω.
  - **PT-2:** 460 W-4 Ω, 325 W-8 Ω.
  - **PT-3:** 760 W-4 Ω, 540 W-8 Ω.
- **Bridge-Mono Mode:**
  - **PT-1:** 605 W-8 Ω.
  - **PT-2:** 910 W-8 Ω.
  - **PT-3:** 1,525 W-8 Ω.

Micro-Tech® Series

Workhorse Power

When you need outstanding performance in a compact design, Crown's Micro-Tech® Series amplifiers deliver. A workhorse for audio professionals worldwide, these amplifiers not only have incredible sonic accuracy, but have proven to be among the most reliable amplifiers you can buy.

Able to drive low-impedance loads with ease, Micro-Tech amplifiers feature three separate power supplies for exceptional reliability and impressive power ratings. Our patented ODEP circuitry keeps the amplifier working long after others would quit. Crown invented Grounded Bridge circuitry which doubles the available voltage without placing output transistors in stressful configurations. The forced-air cooling system makes certain heat is dissipated quickly and evenly for maximum performance. Micro-Tech Series provides you with input choices using our optional MT-XLR and MT-BB modules.

Signal-to-Noise: (A-weighted) Better than 105 dB below rated power.
Input Impedance: 20 k ohms balanced and 10 k ohms unbalanced.
Controls: Enable, Channel 1 and 2 rear-mounted level controls, Dual, Bridge-Mono, Parallel-Mono switch, ground lift switch, three-position input sensitivity switch (0.775 V or 14 V for full output or 26 dB gain).
Connectors:
- **Inputs:** Balanced ¼-in. TRS connectors for each channel.
- **Outputs:** One set of 5-way, color-coded binding posts for each channel (European models do not accept banana plugs).

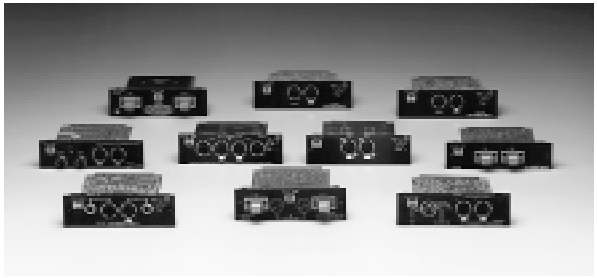
Total Harmonic Distortion (THD): 1 kHz rated power, 0.05% or less true THD.
Intermodulation Distortion (IMD): (60 Hz and 7 kHz @ 4:1) Less than 0.05% from rated power to 35 dB below rated power at 8 ohms.
Load Impedance: Rated for 2 to 8 ohms in Dual, 4 to 16 ohms in Bridge-Mono, 1 to 4 ohms in Parallel-Mono. Safe with all types of loads.
Output Power @ 1 kHz at Rated THD:
- **Dual Mode, per channel with both channels driven:**
  - **MT-600:** 400 W-2 Ω, 325 W-4 Ω, 225 W-8 Ω.
  - **MT-1200:** 675 W-2 Ω, 480 W-4 Ω, 310 W-8 Ω.
  - **MT-2400:** 1,050 W-2 Ω, 800 W-4 Ω, 520 W-8 Ω.
- **Bridge-Mono Mode:**
  - **MT-600:** 750 W-4 Ω, 655 W-8 Ω.
  - **MT-1200:** 1,300 W-4 Ω, 970 W-8 Ω.
  - **MT-2400:** 2,070 W-4 Ω, 1,585 W-8 Ω.

MT-600
MT-1200

THX

P.I.P.® Modules

A New Realm Of Capability



P.I.P. (Programmable Input Processor) modules open up a completely new realm of capability for Com-Tech, Macro-Tech and Studio Reference amplifiers. Simply plugged into the rear-mounted P.I.P. connector of these amplifiers, they provide a cost-effective, convenient alternative to outboard processors or systems that can compromise performance.

A wide, ever-expanding assortment of P.I.P. modules are available.

P.I.P.-FMX facilitates "daisy-chaining" several amplifiers balanced inputs together. Female to male 3-pin XLR connectors are used to passively parallel the amplifier inputs.

P.I.P.-BP1X and P.I.P.-BP1C are versatile stereo band-pass processors that feature a variable 4th-order Butterworth low-pass filter, high-pass filter, plus feedback/error-driven compressor/limiter with infinite compression ratio and variable threshold selection. In addition, vented loudspeaker box equalization and horn equalization are provided. The P.I.P.-BP1X uses XLR connectors while the P.I.P.-BP1C uses Eurostyle removable barrier-block connectors.

P.I.P.-BEQX and P.I.P.-BEQC add many features found in Bose® controllers. Each channel includes a custom equalization network for Bose loudspeakers. Also included is a bass-cut (high-pass) filter for each channel. Both equalization and bass-cut filters are defeatable. P.I.P.-BEQX uses XLR connectors while the P.I.P.-BEQC uses Eurostyle removable barrier-block connectors.

P.I.P.-XOV is a versatile, economical mono 12- or 18-dB/octave crossover/filter which offers bi-amping capability.

P.I.P.-AMCB combines many of the features found in the P.I.P.-XOV, P.I.P.-EDCB and P.I.P.-CLP to provide both a variable 4th-order Linkwitz-Riley crossover and an IOC-driven variable-threshold compressor. In addition, variable equalization networks provide for "constant-directivity" horn equalization and filter-assisted B_6 vented bass box equalization. Bi-amping capabilities are provided via an XLR connector.

P.I.P.-CLP is designed to detect and prevent overload. The same error detecting circuit that is used to signal the IOC indicator is used to activate this error-driven compressor. It is not a typical signal-driven compressor but a circuit to prevent any overload. It can yield up to 13 dB of additional signal safety margin without noticeable program change.

P.I.P.-EDCB contains an error/signal driven compressor and a sub-sonic high-pass filter. DIP switches allow the operator to preset one of four corner frequencies, compressor attack (fast or slow) and release times, or compressor defeat in each channel. Compressor tracking between channels is also possible.

P.I.P.-ATNB includes all the features of the P.I.P.-FTE and adds a calibrated 21-step precision attenuator to each channel.

P.I.P.-PA permits the unique capability of adding one mic or line input directly to each channel of an amplifier. With phantom power for microphones, the mic or line input may be remotely switched from line to mic priorities.

P.I.P.-RPA is a remote-controlled four-input, two output mixer module developed for small systems requiring multiple input configurations. The P.I.P.-RPA provides the capability of prioritized paging for each mic/line input. Features RFI/EMI protection and optional 1:1 isolation transformer (P.I.P.-RPAT).

P.I.P.-FXT uses balanced 1:1 transformers to isolate the amplifier from the input signal. It has balanced female 3-pin XLR connectors.

P.I.P.-FTE includes the features of the P.I.P.-FXT (balanced 1:1 isolation transformers) and adds to each channel a 12-dB/octave RFI filter, a variable 18-dB/octave high-pass filter (to reduce bass/subsonic frequencies), and a 6-dB/octave 3-kHz shelving network for "constant-directivity" horn equalization. Special quick-connect barrier blocks are provided for inputs to each channel.

Amplifier Input Accessories

These accessory modules provide a cost effective way to add alternative inputs to Micro-Tech, Power-Tech, Power Base and CSL Series amplifiers. (Modules must be installed by approved Crown Factory Service Center.)

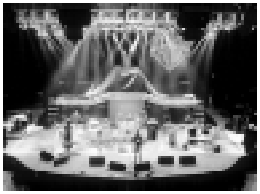
MT-XLR adds 3-pin female XLR input connectors in place of the amplifier's back panel access cover.

MT-BB adds barrier block input terminals in place of the amplifier's back panel access cover.

IQ System®

Ultimate System Integration

Since its introduction in 1989 as the world's first working computer-controlled audio system, the Crown IQ System® has become the most powerful, versatile and widely accepted system in the world. Today, there are hundreds of IQ Systems performing day in, day out in a vast range of applications. From large prestigious installations such as the Georgia Dome and Crystal Cathedral, to small churches, theaters and manufacturing facilities, the IQ System is providing easy-to-use solutions to a host of difficult —and not so difficult—audio problems.



Since its introduction, the IQ System has expanded in capabilities by adding innovative audio components aimed directly at solving real audio problems. Increased flexibility and sophistication have provided even more options for system design, while at the same time, faster, intuitive software makes the IQ System incredibly easy to use and maintain.

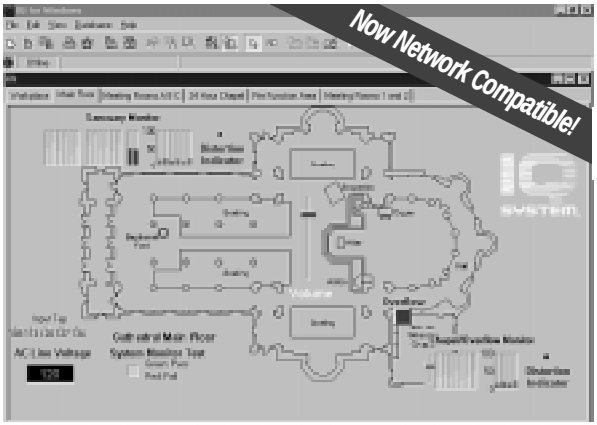
One of the outstanding features of the IQ System is its capability to be exactly tailored to the requirements of an installation, while still allowing for flexibility and future expansion. This capability makes IQ a perfect solution for teleconferencing, room combining, load monitoring, automatic microphone mixing, and much more.

Most importantly, an IQ System can produce significant savings in installation and operating costs. Systems can be designed for the most efficient use of space, wire runs and electrical service, not to mention audio components.

The impressive capabilities of the IQ System are enhanced by the ease of use and sophistication that our IQ software provides. Crown software engineers have created the most comprehensive, yet easy to use software available. It provides the experienced audio professional the ability to control every parameter, yet makes it so easy to operate that even a novice can effectively use an IQ audio system.

IQ for Windows

The Ease of Windows,® the Power of Crown



The most powerful and widely-installed audio control system in the industry takes another leap forward with Crown's IQ for Windows software. With more control options and expanded capabilities than ever, this innovative package brings you a host of new features, including the exciting option of networking multiple computers for IQ System® control.

Regardless of your application–stadium, theater, concert tour or church–IQ for Windows will make the task of monitoring, controlling and testing an audio system easier than you ever thought possible.

By combining the power of Crown's leading IQ technology with the ease of Microsoft Windows® and Windows NT, IQ for Windows software gives you the flexibility to make your audio system function the way you want. Virtually every component can be customized on control panels designed by the user. And, with an interface carefully designed for intuitive operation, you'll be up and running within minutes of installing the software.

Because of this flexibility and ease-of-use, IQ for Windows can be configured for reliable operation by a novice, or set up so that every system parameter is available to a knowledgable user. Comprehensive on-line help for every operation and IQ component is just a simple click away if it's ever needed.

Of course, with fast, 32-bit processing and full compatibility with Windows 95/98 and Windows NT, IQ for Windows is unmatched for flat-out performance in stand-alone or networked operation.

IQ for Windows also features multiple levels of password security which minimizes unauthorized use and makes security procedures more manageable than ever. Access can be easily defined for individual users, which can range from monitoring of the system only, all the way to complete system configuration.

Complete testing of your audio system is available in IQ for Windows with support for Crown's SLM-8 and P.I.P.-SLM Load Monitoring components. By performing reference and test sweeps of their system, users are now able to conduct comprehensive system diagnostics, monitoring and reporting of problems. System testing can be conducted manually or configured for regular, automatic testing as desired.

By connecting an inexpensive modem directly to your IQ System, you can control the system from any modem-equipped computer. All of Crown's innovative mixers/multiplexers can be controlled for mixing and routing of signals. This includes the AMB-5 ambient sensing mixer, SMX-6 automixer and MPX-6 mixer/router. Three types of control panels are available for each mixer, allowing you to display the exact information you want. With every parameter available and under software control, complex systems can be quickly and simply reconfigured at the touch of a mouse.

The success of the IQ System around the world has led other manufacturers to develop products which are IQ-compatible, providing you with additional capabilities. IQ for Windows is easily adaptable for the addition of these third party products.

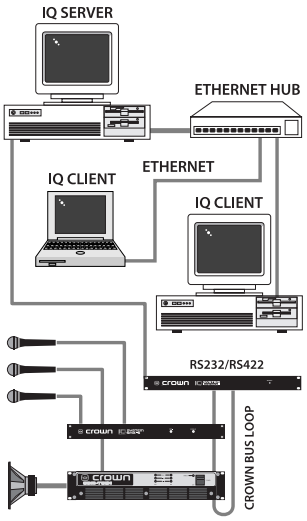
Crown IQ Net Server

Access from any computer on the network.

With CROWN IQ NET, any IQ System can be controlled or monitored from multiple computers networked together. Using virtually any kind of network – from low-cost, off-the-shelf components such as Ethernet to wireless networks– this innovation provides you with another reliable and affordable control option.

Whether set up as an independent network or integrated with an existing one, CROWN IQ NET gives you greater flexibility than ever before. Now, instead of being confined to just one host computer, you can have quick access no matter where you're located. In fact, with a laptop and wireless network, you could roam any large installation and still have full system monitoring and control.

The user interface and operation uses well-established Windows® Client/Server procedures which makes it incredibly easy to learn and use. Networked users can easily track other users, as well as work together in real time, if desired.



IQ Interfaces

IQ-INT II *IQ System Interface*

The IQ-INT II is an IQ System interface that connects up to eight different Crown Bus loops to a host computer. It is a self-contained unit with its own Crown Bus ports, RS232/RS422 port and power supply. It has a microprocessor that can send and receive commands and data to and from IQ components connected to its Crown Bus loops.

IQ-PSI *Pocket Serial Interface*

A pocket-sized interface, the IQ-PSI can serve as a portable IQ interface that connects a single Crown Bus loop to a host computer in an IQ System. Its self-contained RS232 and Crown Bus circuitry can be powered by a single 9-volt battery or an external AC power adapter. In addition, the standard IQ Auxiliary port, included on the IQ-PSI, can be used to connect to a non-IQ device, or to send and receive simple logic signals.

Applications for the PSI are primarily for setup of IQ Systems where an INT II or other interface product is not required. This tool allows a system installer or servicer to easily and quickly program a system using the PSI and a laptop computer.

IQ–MPX-6™ Mixer

Computer-Controlled Switching & Routing

Best described as a 6x2 stereo mixer with the added bonus of computer-controlled input switching and routing, the MPX-6 Mixer is an ideal choice for applications where computerized manual mixing or routing is desired.

A single MPX-6 routes and switches six inputs and two summed outputs, with the option of stacking additional units for multiple inputs and/or outputs. A 4 x16, 8 x 24, or 16 x 48 matrix can be easily configured using additional units.

The MPX-6 also accepts mic or line level inputs or a mic level input with phantom power. Gain control is from –100 dB to + 25 dB in ½-dB increments and maximum throughput gain of +71 dB.

IQ-RPT Repeater

Impressive Crown Bus Loop Length

The IQ-RPT Repeater helps an IQ System "go the extra mile" by increasing the length of a Crown Bus loop. By reconstructing the data signal to prevent degradation, the IQ-RPT can typically boost the operating distance of a Crown Bus by 1,000 feet (305 meters) or more.

Better still, up to 57 repeaters can be added to a single loop, so total loop distance may reach 58,000 feet (17.7 kilometers)—or almost 11 miles! The IQ-RPT conforms to Crown's newer IQ2 protocol, which means it can be used with *all* Crown components.

IQ–SMX-6™ Automatic Mixer

The Bonus of Level Monitoring

The SMX-6 Mixer features the ability to completely reconfigure itself via computer software to perform a variety of different functions. It is a 6x2 mixer with computer-controlled input switching and routing capabilities. In addition, it offers the capability to monitor pre-attenuated levels coming into its inputs and summed output levels.

The SMX-6 includes eight level detectors on the inputs and outputs, which appear as color bar graphs on the host computer screen.

As an automatic mixer, the SMX-6 adapts to varying signal conditions. Among the automatic functions are auto-leveling, compression, gating, gate count, level sets, and limiting.

For larger system usage, the SMX-6 can also be daisy-chained with one or more Crown IQ SMX mixers. Once an SMX-6 is programmed from a host computer, it can effectively run Crown's IQ System, on-site by itself, with full memory backup.

- Separate processing for each output channel
- Max Gain
- Input Noise Gate
- Gate Count
- Duck Priority
- Max Number of Open Mics
- Auto-Level
- Feed-forward Input Compression/ Limiter
- Output Compression/Limiter
- Ambient Noise Compensation (AMB-5 only)

Hardware Control Features

- Line mic, or phantom power settings for each audio input
- Individual preamp gain controls
- IQ address and serial port configuration switches

IQ–AMB-5™ Ambient Sensing Mixer

Ambient Control

The AMB-5 mixer provides all the key functions of an ambient control system. Ideal for installations where noise levels or crowd densities frequently change, the AMB-5 automatically compensates for ambient noise. It offers simple operation and provides economical and reliable sound level management without the added expense of custom software.

The AMB-5 includes five intelligent (similar to the SMX-6 Mixer) mic/line inputs and one output, with an additional input for an ambient sensing microphone. Automatic mixing is provided and includes capabilities like independent channel compression, gating, priority ducking and much more.

In addition, the AMB-5 functions as a passive 6x1 mixer that is output independently to channel 2, ideal for monitoring an installation.

As with the SMX-6 the AMB-5 can adapt automatically to varying signal conditions.

The AMB-5 can be integrated with other mixers and IQ components to provide unmatched flexibility and system expansion.

SMX-6, MPX-6, AMB-5 Specifications:

Input Type: Active differential, transformers optional
Maximum Input Level: Microphone: +7 dBu Line: +32 dBu
Input Impedance: Microphone: 4 k ohms nominal, Balanced line: 20 k ohms, Unbalanced Line: 13 k ohms
Phantom Power: +44 VDC
Maximum Output Level: +26 dBu
Maximum Gain: Microphone: +71 dB, Line: +46 dB
Output Impedance: 50 ohms unbalanced, 100 ohms balanced
Frequency Response: 20 Hz-20 kHz +0, -1dB
Total Harmonic Distortion: (Mic in, 40 dB gain, 20 Hz to 20 kHz), <0.05% at +4 dBm output, <0.05% at +20 dBm output
Noise: Output noise, all inputs off: -80 dBu (106 dB below rated output). Output noise, one line input at 0 dB gain: -80 dBu. Equivalent input noise, mic input, 46 dB gain, 150-ohm source: –125 dBu. (Specs are typical, unweighted, for 20 Hz to 20 kHz.)
Crosstalk: Adjacent inputs/outputs at 1 kHz: better than –80 dB, Adjacent Inputs/Outputs from 20 Hz to 20 kHz: better than –65 dB

IQ–SLM-8 External Load Monitor

Computer-Controlled System & Load Monitoring

Crown's IQ–SLM-8 allows you to monitor up to eight channels of your audio system for impedance and frequency response. A powerful diagnostic and troubleshooting tool, the SLM-8 can help you to identify problems before they become severe, and alert you to unauthorized changes which may have been made to your system setup.

Using the impedance testing capabilities of the SLM-8, you could locate a damaged loudspeaker before it fails completely. Or, by monitoring the frequency response of an output, you might locate unauthorized changes which had been made to the level or equalization settings of your system.

The SLM-8 works like this: When a load or output is tested, the unit will compare the results to a reference measurement stored inside its memory and display either a pass or fail signal with its two-color indicators on the front panel. In addition, the unit will send pass/fail information to an IQ System®, if one is connected.

The SLM-8 can be monitored and controlled using an IQ System, or it can be used in stand-alone mode after it has been configured by an IQ System. An external switch can be used to trigger new tests.

- Frequency and Impedance load response
- Eight monitor channels
- Sixteen bi-color pass/fail LEDs
- Stand-alone configuration (computer optional after setup)
- Only two rack spaces high

Maximum Speaker Line Through Current: 20 amps RMS
Maximum Speaker Line Voltage: 200 volts peak
Maximum Measurement Current: 200 milliamps RMS
Minimum Measurement Current: 5 milliamps RMS
Maximum Measurement Voltage: 7.75 volts RMS (+20 dBu)
Minimum Measurement Voltage: 7.75 millivolts RMS (-40 dBu)
Maximum Measurement Impedance: 1000 ohms typical
Minimum Measurement Impedance: 1 ohm typical
Frequency Response Test Repeatability: Typically better than 1 dB at midrange of measurable frequency and level with an 8 ohm load
Impedance Response Test Repeatability: Typically better than 3% at midrange of measurable frequency and level with an 8 ohm load
General Maximum Output: +10 dBu balanced
Generator Maximum Distortion: Typically less than 0.5%
Generator Frequency: 20 Hz through 22 kHz in 1/24 octave steps.
Generator Output Level: Adjustable in 1 dB steps from +10 dBu to -40 dBu.

IQ–P.I.P.-SLM

Powerful System, Load Monitoring, and IQ Control

Making use of the powerful features and flexibility of the IQ–P.I.P.-SLM system, the IQ–P.I.P.-SLM brings load monitoring capabilities to your PIP2-compatible amplifier. Featuring a built-in sine-wave generator and data-acquisition system, the P.I.P.-SLM allows you to perform independent testing of each amplifier channel for both load impedance and amplifier signal level.

Results of these tests are stored via on-board memory, where they can later be used to verify the integrity of amplifier level settings, or perform early detection for failing components.

Easy to install and use, the P.I.P.-SLM works by comparing new test results with the reference test results stored in memory. If new results fall outside of the user-defined tolerances, a "fail" status is reported to the attached IQ System (if present) or to the P.I.P.s aux port, where it can signal the test status via a light or other auxilary attachment.

Test start and stop commands can also be triggered via the aux input, as well as through IQ software commands. This enables the P.I.P.-SLM to be operated in stand-alone mode, if desired, once it has been configured using an IQ System.

Impedance Measurement Capablities: 1 to 250 ohms, 20 Hz to 22 kHz
Frequency Resolution: 1/24, 1/12, 1/8, 1/3, 2/3, or 1-octave spacing
Generator Frequency Range: 20 Hz to 22 kHz
Generator Amplitude: Adjustable from +10 dBu to 40 dBu
Input Impedence: 20 k ohms balanced and 10 k ohms unbalanced
Maximum Input Level: +25 dBu, peak
Output Noise: Less than -90 dBu from 20 Hz to 22 kHz
Frequency Response: ±0.1 dB, 20 Hz to 22 kHz
Total Harmonic Distortion: Less than 0.05% at 20 Hz to 20 kHz

IQ–P.I.P.-MEM

P.I.P. Control with Memory Backup

Allowing full remote control and monitoring of any P.I.P./PIP2 compatible Crown amplifier, the IQ–P.I.P.-MEM plugs directly into your amp and connects to an IQ System via a simple two-wire twisted-pair bus. A special memory function provides backup of all component settings for quick restore in the event of a power outage or the powering down of the amplifier.

- Provides precision control of input signal level, energy-saving standby mode, input signal polarity and channel mute via the IQ System.
- Allows monitoring of input and output signal levels, ODEP levels (thermal information) and IOC status (distortion) for each channel of the amplifier.
- Bi-directional AUXiliary port permits the control of external devices and accepts logic-level signals from external devices.

IQ–P.I.P.-SMT

Smart Amp Automation

Featuring SmartAmp™ capabilities, the IQ–P.I.P.-SMT offers a range of automation functions which provide greater control over amplifier operation and help to save both time and money. Includes all of the features of the P.I.P.-MEM, plus error-reporting capabilities and an energy saving standby mode for increased energy efficiency.

- Input signal compressor/limiter available for each channel.
- Features an average output signal limiter for each channel which can be used to protect driver components from excessive power dissipation.
- Auto Standby feature automatically signals the amplifier to enter the energy-saving standby mode when the input signal is absent for a user-defined period of time.
- Allows monitoring of fault conditions.

IQ–P.I.P.-DSP

Powerful Digital Processing

Providing a wide range of programmable functions, such as filters, crossovers, signal delay, input compression, and output limiting, the IQ–P.I.P.-DSP offers new levels of audio capabilities. Combining in one package the sophisticated capabilities of digital signal processing with our highly acclaimed IQ System, the P.I.P.-DSP offers a unique package of performance, ease of use and value to audio pros.

The P.I.P.-DSP includes all of the features of the IQ–P.I.P.-MEM and IQ–P.I.P.-SMT. Audio systems as small as a one or two amp installation, up to the largest touring shows and stadium-sized systems, can profit from the many benefits of this innovative module.

- Provides sophisticated DSP (Digital Signal Processing) capabilities for greater control of your sound.
- Replaces or reduces the need for separate equalizers, crossovers, signal delays, compressors and a host of other processing equipment.
- Provides Distributed Intelligence at the amplifier level for full independent automation and increased reliability.
- As many as eight different cascaded filters can be applied to each channel.
- Provides seven different filter types, including low- and high-pass crossover, low- and high-pass equalization, low- and high-pass shelving equalization, and parametric equalization—all controlled by the IQ System.
- Provides a "no knobs" environment to ensure consistent audio quality.

Crown Microphones
Rugged and Reliable

Crown designs and manufactures a large selection of professional microphones that are unsurpassed for sound quality, rugged construction and competitive pricing. Designed to bring new levels of performance and features to critical application areas, whether it's headworn microphones for concert sound or elegant microphones for boardroom teleconferencing, our microphones help solve the difficult miking situations of the audio industry.

Specified and used by audio professionals worldwide in such applications as broadcast, live sound reinforcement, recording and commercial installations, our microphones are continually setting the standards for performance, features and value. In fact, Crown microphones are getting rave reviews by end-users and reviewers alike for their consistent, natural sound and excellent gain before feedback.

Every Crown microphone is covered by a comprehensive warranty that covers parts, labor, and shipping costs in North America, a guarantee of excellence. Visit your Crown dealer and audition our microphones for yourself, or contact us for more information.

CM Series

CM-150
Recording/Acoustical Measurement

The CM-150 is a precision, omnidirectional condenser microphone designed specifically for professional recording applications. It is also an excellent choice for accurate acoustical measurement. The CM-150 is extremely stable over a wide range of environmental conditions and features a flat, wide-range frequency response. It includes a calibrated frequency response curve, a WS-15 foam windsreen, ASA-4 stand clamp and a male 3-pin XLR-type output. Requires 18-48 volt phantom power.

CM-700
Professional Recording

The CM-700 is a condenser microphone intended for use in professional recording and sound reinforcement applications. With a cardioid pickup pattern and extremely low self-noise, this microphone is perfect for clean, noise-free recordings of acoustic instruments, drum overheads and studio vocals. Able to handle up to 151 dB SPL, the CM-700 features a smooth, wide-range frequency response, a three-position bass roll-off switch and a male 3-pin XLR-type output. Requires 12-48 volt phantom power.

CM-10/10E
Professional Quality, Popular Price

The CM-10 miniature condenser lavalier microphone provides professional-quality voice reproduction. Featuring an omnidirectional pickup pattern and wide frequency response, the CM-10 is perfect for use in professional broadcasting and sound-reinforcement applications. The CM-10 includes a rugged tie clip (dual clip optional) and a power module with balanced, low-impedance male 3-pin XLR-type output. Requires 12-48 volt phantom power. The CM-10E is supplied without a connector for wireless applications.

CM-200A/200ASW
Smooth Vocals, Excellent Instrumentals

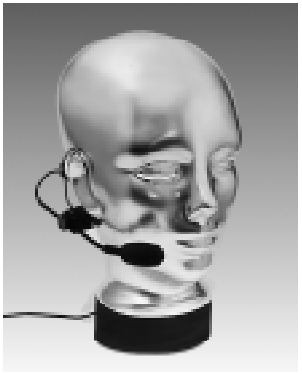
The CM-200A cardioid condenser microphone delivers studio-quality sound in a rugged package able to withstand the toughest field conditions. Its smooth, articulate performance combined with a wide frequency response, make it an excellent choice for professional applications. The CM-200ASW features an on/off switch and a male 3-pin XLR-type output. Requires 12-48 volt phantom power.

CM-310A/310ASW
The Differoid® Difference

Featuring Crown's patented Differoid® technology, the CM-310A provides sizzling performance combined with the best gain before feedback in the business. Used by top touring professionals worldwide, the CM-310A is ideal for high SPL sound reinforcement applications. The CM-310ASW features two switches for on/off operation, rising/flat high-frequency response and male 3-pin XLR-type output. Requires 12-48 volt phantom power.

CM-311A / 311AHS/311AE
Headworn Differoid®

The CM-311A offers Differoid performance in a comfortable headworn package. Designed for demanding touring sound applications, its electret condenser capsule provides full, clear and distortion-free sound with exceptional isolation and gain before feedback. For hands-free work directly in front of loudspeakers there is no other choice. Lightweight, rugged and comfortable, the headband and mic boom are adjustable to any vocalist. Includes battery/phantom powered beltpack with programmable mute switch for hardwired use and a male 3-pin XLR-type output. The CM-311AHS mounts on a Sony MDR-V6 or MDR-7506 headphone. CM-311AE offers pigtail output for wireless applications.



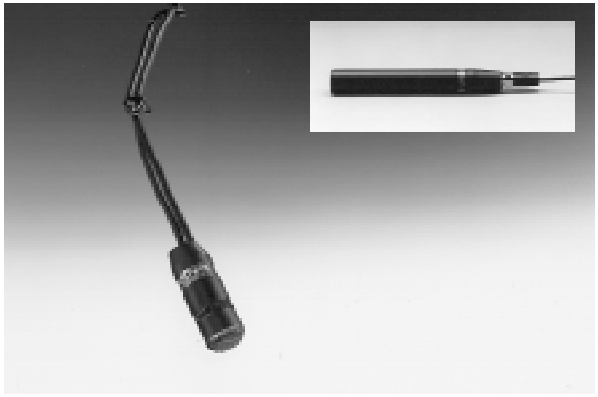
CM-312A/312AHS/312AE
Headworn Flexibility

The CM-312A provides condenser hypercardioid directional characteristics with the same comfort and fit of the CM-311A. Ideal for live sound, aerobics and broadcast applications where less discrimination against feedback is required. Includes a battery/phantom powered beltpack with programmable mute switch for hardwired use and a male 3-pin XLR-type output. The CM-312AHS mounts on a Sony MDR-V6 or MDR-7506 headphone. The CM-312AE offers pigtail output for wireless applications.

MICROPHONES

CM-30/30W *Perfect For Choirs*

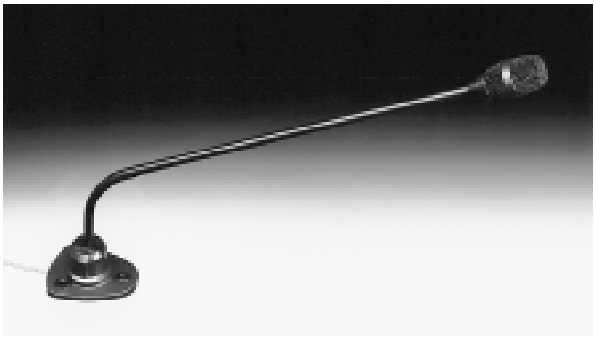
Virtually invisible and featuring an adjustable hanger for easy positioning, the CM-30 is the hanging microphone of choice for church choir and overhead stage miking. Smooth, wide-range response makes the CM-30 ideal for natural reinforcement or recording, while its ultra-tight supercardioid pattern provides impressive gain before feedback by rejecting unwanted noise and reverberation. Electronics for the CM-30 attach to a standard electrical box. Requires 12-48 volt phantom power. Includes 30-ft cable and electronics (60-ft. cable also available as CM-30L). Available in black or white (CM-30W).



CM-31/31W *In-Line Power Supply*

Matching the CM-30's tiny size, outstanding performance and ease of use, the CM-31 offers an in-line power supply with a low-frequency cut switch and a male 3-pin XLR-type output. Output is balanced, low impedance and is protected against static and RF interference. Requires 12-48 volt phantom power and includes a 30-ft. cable (60-ft. cable also available as CM-31L). Available in black or white (CM-31W).

LM Series



LM-201 *The Rugged Lectern Mic*

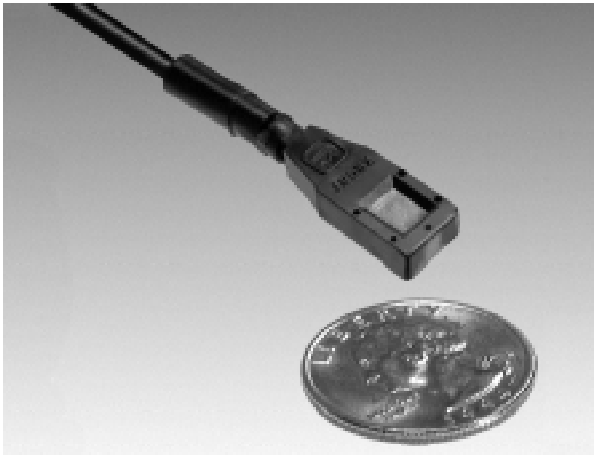
Slim and rugged, the LM-201 is an excellent choice for legislative, religious and other demanding lectern applications. Combining a shock isolated capsule and base, durable mic arm, and a unique ball and socket base mounting system, the LM-201 provides quiet, long term operation. The LM-201's supercardioid pattern rejects background noise and reverberation, and improves gain before feedback. Requires 12-48 volt phantom power. Includes interface module with a male 3-pin XLR-type output and WS-11 windscreen. Available in black or brown (LM-201B).

LM-300A / 300AL / 301A

Pulpit, Lectern, Tabletop...

No matter the situation, the elegant LM-300A and LM-301A can meet the need. These silent-operating goosenecks provide superb supercardioid performance and noise rejection. Explosive breath sounds are effectively reduced with the supplied two-stage foam pop filter while a low frequency cut switch further reduces both breath and handling noise. The LM-301A screws onto a standard $^{5}/_{8}$" - 27 thread and includes a 10-ft. cable and an in-line tubular electronics module. The LM-300A and LM-300AL (extended) plug directly to a female three-pin XLR-type output. Requires 12-48 volt phantom power.

GLM Series
Miniature Flexibility



GLM-100/100E *Omnidirectional*

Designed for musical instrument and vocal applications, the GLM-100's miniature size and gigantic performance make it a natural for recording, sound reinforcement, broadcast and motion picture production. An omnidirectional electret-condenser, it features a smooth, wide-range frequency response for truly professional sound quality.

Tough miniature electronics and a rugged, resilient housing ensure that the GLM-100 will withstand the most rigorous conditions. The GLM-100 attaches to instruments or clothing with the provided tie clip bar or GLM-UM universal mount. Male 3-pin XLR-type output. Requires 12-48 volt phantom power. The GLM-100E features the same outstanding design adapted for use with wireless microphone transmitters.

GLM-200 *Hypercardioid*

Featuring a wide, smooth, and exceptionally uniform on and off axis frequency response, the GLM-200, a miniature hypercardioid, offers extra gain before feedback for critical sound-reinforcement applications. The GLM-200 is ideal for musical instrument reinforcement or recording and can be attached directly to instruments with the GLM-UM (supplied). The GLM-200 can also be used as a directional lavalier microphone with included GLM-TB tie bar. Extra reliability is provided by flex/strain relief systems at both the microphone and cable connector. Supplied with a permanently attached 8-ft. cable with male 3-pin XLR-type output. Requires 12-48 volt phantom power.

SASS® Series
Stereo Ambient Sampling System

SASS-P MK II
Natural Stereo Imaging

The SASS-P MK II is the latest version of our patented, stereo condenser microphone using PZM technology. A mono-compatible, near-coincident array design makes it perfect for professional recording, broadcast and sampling.

The SASS-P MK II features carefully controlled polar patterns and accurate human ear spacing between its capsules to create well-focused, natural stereo imaging without a "hole in the middle." Reproduction is precise and realistic, with the SASS-P MK II accurately conveying ambient environmental sounds. Ideal for on-location recording, film sound or live broadcast.

Separate left and right male 3-pin XLR-type outputs are low-impedance balanced, allowing long cable runs without hum or high-frequency loss. A low-frequency cut switch attenuates frequencies below 100 Hz by 12 dB per octave, reducing wind noise and low-end rumble.

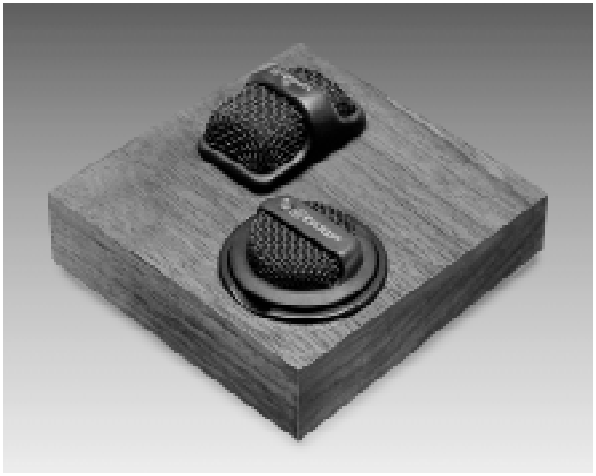
The SASS-P MK II can be powered by either two internal 9-volt batteries or by 12-48 volt phantom power. Includes a high-impact waterproof carrying case, windscreen, handgrip, and threaded adapter.

SASS-P HC
Natural Stereo Imaging

Perfect for permanent installations such as high school and college music programs, the SASS-P HC stereo condenser microphone is the same as the SASS-P MK II, but is sold without the carrying case or accessories except windscreen. Case and accessories may be purchased separately, if desired.

MB Series

Mini-Boundary™ Microphones



Featuring an incredibly small size, the MB Microphone System offers more options, greater flexibility and fast, easy installations. The miniature, low-profile designs virtually disappear when installed, yet provide the same great sound as our highly-acclaimed PCC microphone series. Best of all, MB Series microphones provide substantial savings compared to traditional mics.

Designed with the help of leading audio consultants and contractors, the Mini-Boundary series is a comprehensive system of microphones and electronics that's perfect for applications ranging from boardrooms, teleconferencing and distance learning to security, surveillance and theater.

The MB Series includes five microphone variations – three that work with our innovative "under-table" MB interface and two that operate in a traditional "stand-alone" manner. The MB system lets you mix and match microphones as needed for multiple configurations while the MB interface provides programmable switching functions for up to 4 units. With easy-hookup Phoenix connectors and a low profile, the MB interface mounts quickly and unobtrusively beneath a tabletop. Compared to standard individual microphone installations, the MB system offers significant savings.

All MB System microphones feature a surface-mounted supercardioid capsule for extended reach and clarity and a wide, smooth frequency response. With 70 dB of attenuation in the off position and extremely low self-noise, absolute quiet is guaranteed even when multiple microphones are in use.

All MB System microphones come with a built-in red LED. This indicator may be switched on and off by the MB-100 and MB-200 interfaces in conjunction with the operation of the MB-1, MB-2, or MB-4E microphones. The MB-3 and MB-4 LED is illuminated when phantom power is applied.

MB-1 Just 1.3 in. wide! The low-profile MB-1 features a ¼-in. stereo phone plug for quick insertion and removal from the supplied insert. The insert, featuring a black anodized aluminum finish, can be permanently installed, and includes a black dust cap for use when the microphone is removed. In combination with an MB Interface, the MB-1 can be programmed for multiple switching functions.

MB-2 This tiny, (less than 1 x 1½ in.) removable microphone features a ¼-in. stereo phone plug for quick insertion and removal from a standard contractor-supplied jack. Like the MB-1 and MB-4E, it features multiple switching modes when used with an MB Interface.

MB-3 A stand-alone unit with a built-in electronics package, the low-profile MB-3 mounts easily into tabletops, walls or ceilings. It uses a standard male 3-pin XLR-type output and comes with a locking security ring.

MB-4 This mini rectangular microphone is designed for stand-alone use and comes with a 15' cable. All required electronics are contained within the male 3-pin XLR-type output. The cable may be positioned to exit either the bottom or rear of the microphone.

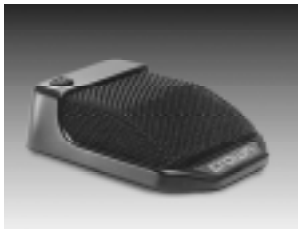
MB-4E A pigtail version of the MB-4, its cable fits through a small hole in the mounting surface and is intended for use with the MB Interfaces.

MB-100/MB-200 Interface Designed to accommodate up to four microphones, the MB Interface is a low-profile electronics package easily mounted beneath a tabletop. It works with MB-1, MB-2 and MB-4E microphones and provides four inputs, four outputs and four remote switch inputs. Each switch input can be programmed for either push-on/off, momentary on, or momentary off operation. In the off position, the MB interfaces provide 70 dB attenuation at the microphone output ensuring absolute quiet even when multiple microphones are in use. With the same features as the MB-100, the MB-200 also provides four external switch closures via optical couplers. Both interfaces require external 18-48 volt phantom power.

PCC® Series

PCC-160/160W
Industry-Standard Boundary Mic

Long recognized as the industry-standard stage-floor microphone, the supercardioid PCC-160 is also great for lecterns and conference tables — anywhere maximum gain and articulation are essential. PCC boundary technology guarantees phase coherence throughout the audible spectrum, while increasing sensitivity by 6 dB. Includes 15-ft. cable with male 3-pin XLR-type output. Requires 12-24 volt phantom power. Available in black or white (PCC-160W).



PCC-130/130W
Mini Boundary

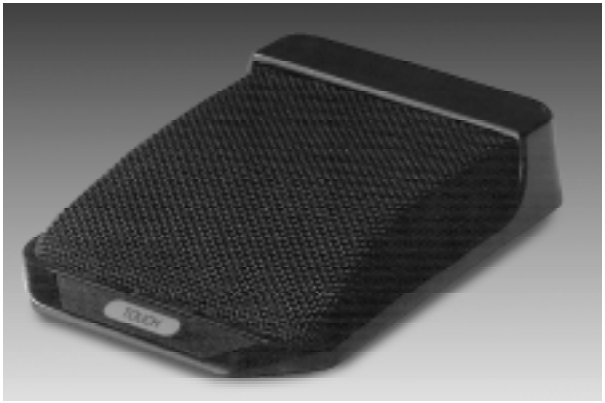
Sometimes, unobtrusive just isn't enough. Enter the PCC-130, featuring the exceptional performance of the PCC-170 in a package only half the size. When the situation demands that a mic be heard but not seen, the PCC-130 is the obvious choice. Its supercardioid pattern reduces background noise, reverberation, and feedback. Includes 15-ft. interface cable with male 3-pin XLR-type output. Requires 12-24 volt phantom power. Available in black or white (PCC-130W).

PCC-130SW *Silent Control*

Similar in size and performance to the PCC-130, the PCC-130SW features a silent-operating membrane switch which can be configured for touch on/off, momentary on, or momentary off operation. A LED mounted on the microphone case illuminates when the unit is on. Designed for multiple-microphone use on a conference table, the PCC-130SW allows individual control of each microphone. Includes 15-ft. interface cable with male 3-pin XLR-type output. Requires 12-24 volt phantom power. Available in black or white (PCC-130W).

PCC-170/170W *Surface-Mount Agility*

A surface-mounted supercardioid design, this elegant microphone features a frequency response carefully tailored to create extremely natural voice reproduction. Equally adept in the boardroom, at the lectern, or for teleconferencing, the PCC-170 allows easy adjustment of both high-frequency and low-frequency response. Includes 15-ft. interface cable with male 3-pin XLR-type output. Requires 12-24 volt phantom power. Available in black or white (PCC-170W).

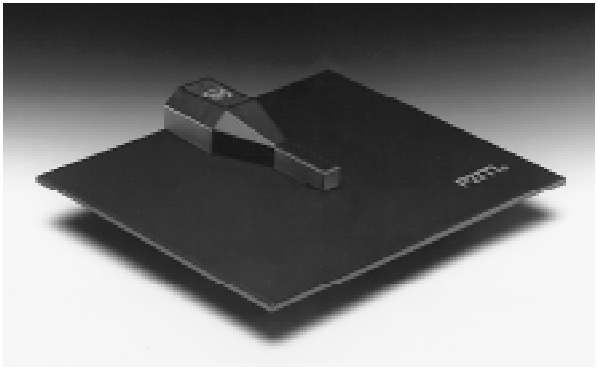


PCC-170SW/170SWO *Silent Control*

Featuring the same outstanding performance and appearance of the PCC-170, these versions offer a status LED and a programmable silent-operating membrane switch(touch on/off, momentary on, or momentary off function). The PCC-170SWO adds external switch closure capability. Requires 24-48 volt phantom power. Includes 15-ft. interface cable with male 3-pin XLR-type output. Requires 12-24 volt phantom power. Available in black or white (PCC-170W).

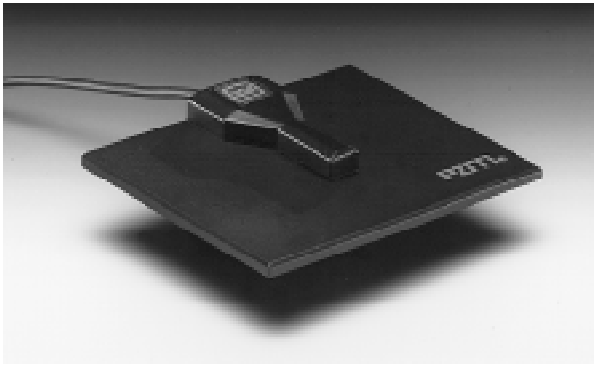
PZM® Series

Pressure Zone Microphone®



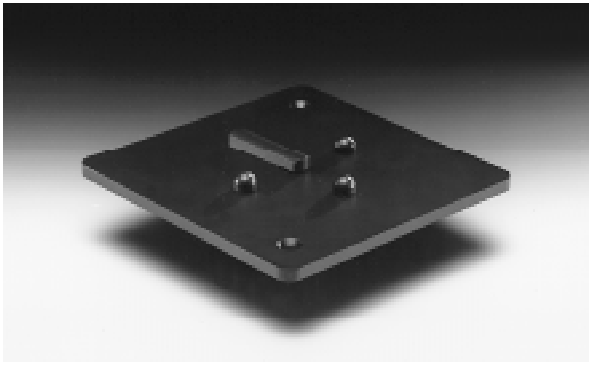
PZM-30D Switchable Performance

Added acoustical gain. Clean, clear high frequencies. Uniform polar response. The PZM-30D offers all of these PZM advantages in a rugged, durable package. A switchable dual frequency response provides a "rising" position that adds brilliance and articulation, while the "flat" position maintains a smooth, flat and natural high-frequency response. Miniaturized electronics allow direct 12-48 volt phantom power without external interface. Includes a male 3-pin XLR-type output and PZM windscreen.



PZM-6D Indisputably Inconspicuous

With 100% of the performance but only one-quarter the footprint of the legendary PZM-30D, the PZM-6D is the smallest high-performance PZM available. Ideal for miking grand pianos, mounting overhead or placement on the conference table, this versatile microphone offers a switchable "rising" or "flat" response. Miniaturized electronics found in the PZM-6D's male 3-pin XLR-type output are attached to the mic via a 15-ft. cable. Includes PZM windscreen. Requires 12-48 volt phantom power.



PZM-20R The Special-Purpose Pro

Perfect for permanent "flush-mounting" in conference tables, lecterns, pulpits and walls, the PZM-20R is a great choice for clear speech pickup. It features a hemispherical pickup pattern, rising high-frequency response and low-frequency roll-off for increased clarity. Mounts in a shallow cavity or standard "double gang" electrical wall box. Requires 12-48 volt phantom power. Includes 3-pole screw terminal audio connection.

PZM-10

Security & Surveillance

A low-profile omni pressure-zone microphone similar to the PZM-11. Features a cylindrical design for ceiling, wall or tabletop installations, making it virtually invisible. Includes unique mounting system for quick installation, and a 3-pin XLR-type output. Requires 12-48 volt phantom power.

PZM-11/11LL Security & Surveillance

The PZM-11 presents a low-cost solution for security and surveillance applications. Mounted on a standard "single-gang" metal switch plate, the PZM-11 has the appearance of an ordinary light switch. Intelligibility is excellent, with low frequencies below the voice range rolled off to reduce the pickup of HVAC rumble. Electronics on the rear of the plate offer screw terminals, eliminating the need for connectors. The PZM-11 uses 12-48 volt phantom power, while the PZM-11LL features line-level output and 12-24V DC, 24V AC, or 12-48 volt phantom power.

MICROPHONES

PZM-185
All-Purpose PZM

An all-around performer, the PZM-185 is designed for conferences, group discussions, interviews, home video, lecterns and recording. The PZM-185 is ideal for budget-conscious applications. Powered by an internal AAA battery or 12-48 volt phantom power, it features an attached 10-ft. cable with male 3-pin XLR-type balanced output.

PZM Sound Grabber II
The Name Says It All

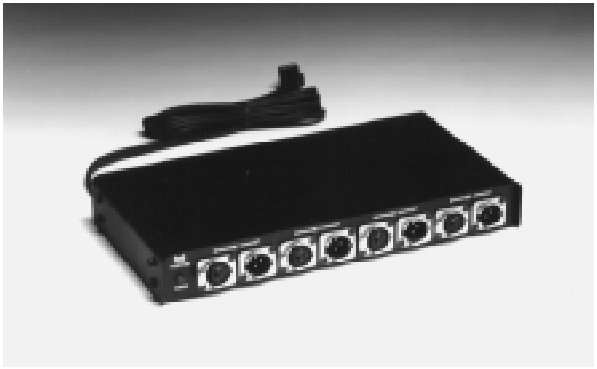
While it's the most cost-effective PZM available, the Sound Grabber II really lives up to its name in applications ranging from group discussions to conference recording. Also ideal in remote applications, it comes hardwired with a 10-foot cable and a long-lasting, self-contained AAA battery. An added bonus: the Sound Grabber II functions very well with consumer recording devices with high-impedance phone-jack inputs. Features a metric standard 3.5 mm mini phone plug and adapters for 2.5 mm micro and ¼-in. phone plug connections.

Power Supplies

PH-1A *Single Channel Phantom Power Supply*
PS-24 *AC Adapter*

The PH-1A is a reasonably priced single-channel phantom power supply. Operating from two standard 9-volt batteries or a small plug-in AC adapter, it will power all Crown microphones, as well as other condenser microphones designed to operate with phantom power of 18 to 24 volts.

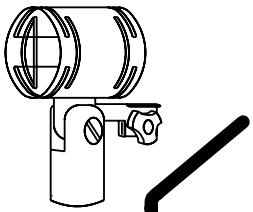
The PS-24 is a plug-in AC adapter that provides 24V DC for the Crown PH-1A phantom power supply (described above). It will also provide phantom power for the LM-201 microphone. 120V AC only.



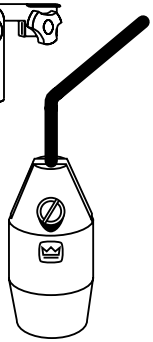
PH-4B *Phantom Power Supply*

The PH-4B is an AC powered 4-channel power supply providing 48V DC in a phantom power configuration. It uses 3-pin XLR-type connectors for each channel of input and output. DC blocking is provided for easy coupling to input circuits.120 volt AC only.

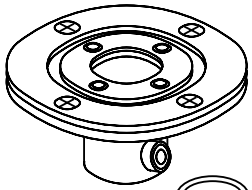
Microphone Accessories



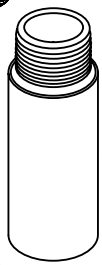
CM-SM: Shock isolation mounting system for the CM-700 and other 3/4-inch diameter microphones. Provides cable-locking mechanism.



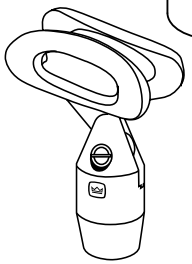
CM-30SA: Stand adapter for the CM-30 and CM-31 hanging microphones for those applications where the microphone cannot be suspended from above.



LM-SM: Shock mount for the LM-300A and LM-300AL. The LM-SM reduces mechanically induced noise.

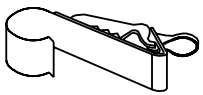


LM-301SMA: Enables the LM-301A to be used with the LM-SM shock mount.

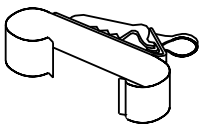


ASA-2: Stand adapter for the CM-200A and CM-310A handheld microphones.

ASA-4: Stand adapter for the CM-700 and CM-150 microphones, or other 3/8-inch diameter microphones.

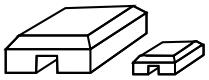


CM-TB: Tie bar for the CM-10 and CM-10E.

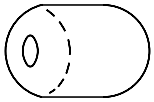


CM-TB2: Dual tie bar for the CM-10 and CM-10E.

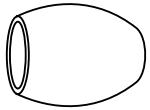
Microphone Windscreen Accessories



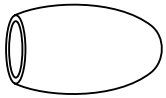
WS-PZML and WS-PZMS: Foam windscreen for PZM-6D (WS-PZMS) and PZM-30D (WS-PZML) microphones.



WS-2: Foam windscreen for the GLM-100 and GLM-200 microphones.

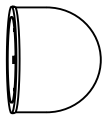


WS-4: Foam windscreen for CM-200A and CM-310A series handheld microphones.

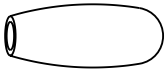


WS-5: Foam windscreen for the LM-300A, LM-300AL, LM-301A lectern microphones and the CM-30 and CM-31 hanging microphones.

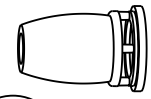
WS-5W: White foam windscreen for the CM-30W and CM-31W hanging microphones.



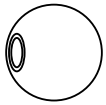
WS-6: Single stage foam pop filter for the CM-311A series headworn microphones.



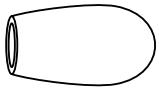
WS-7: Foam windscreen/pop filter for the CM-312A series headworn microphones.



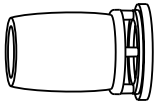
WS-9: Two-stage foam windscreen/pop filter for the LM-300A series lectern microphones.



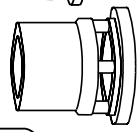
WS-10: Foam windscreen for the CM-10 series lavalier microphones.



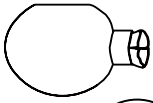
WS-11: Foam windscreen for the CM-700 and LM-201 series lectern microphones.



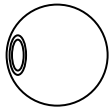
WS-12: Pop filter for the CM-700 microphone.



WS-13: Two-stage pop filter for the CM-311A series headworn microphones.



WS-14: Multi-stage headworn windscreen for CM-311A series headworn microphones.



WS-15: Windscreen for CM-150 microphones

Microphone Publications

Crown offers a variety of publications and guides for its full line of microphones. In addition to those materials listed below, technical data sheets with full specifications and operating instructions are available for most microphones. You may obtain these free materials from your Crown representative or by contacting Crown direct at 800-342-6939 or 219-294-8200.

Crown Boundary Microphone Application Guide: This brochure provides general boundary and PZM® microphone theory as well as specific suggestions for the use of these microphones. Microphones covered are the PZM®, PCC® and SASS® series microphones.

Microphone Application Guide: In this application guide, you'll find basic microphone technique information as well as suggestions on using Crown microphones effectively. Microphones covered include the CM, GLM, and LM series microphones.

Crown Application Guide for Houses of Worship: This guide provides suggestions and miking techniques for the specific problems found in houses of worship.

Crown Application Guide For Video: A review of miking techniques for video applications using all Crown microphones.

Crown Application Guide For Schools: This guide reviews miking techniques for a number of school applications using Crown microphones.

Crown Application Guide for Studio Recording: A review of miking techniques for studio recording using all Crown microphones.

Crown Application Guide for Teleconferencing & Distance Learning: A practical guide of basic miking techniques for teleconferencing and distance learning applications featuring Crown microphones.

Crown Application Guide for Speech Sound Reinforcement: This guide provides suggestions and miking techniques for the specific problems found in speech sound reinforcement applications.

Crown Application Guide for Security and Surveillance: This guide offers practical solutions for security utilizing the PZM-10 and PZM-11, MB-3, and GLM-100 microphones.

7 Points to Understanding Microphones: A practical introductory tutorial covering basic miking techniques.

Crown Microphone Catalog: This catalog showcases Crown's complete line of microphones and includes a full listing of specifications and accessories.

Crown Three -Year, No-Fault, Full Warranty

Crown's superior design and performance is backed by the best warranty and service in the business. All Crown amplifiers are guaranteed by Crown's Three-Year, No-Fault, Full Warranty—an industry exclusive. With this unprecedented No-Fault protection, your new Crown amplifier is warranted to meet or exceed original specifications for the first three years of ownership. During this time, if your amplifier fails for any reason, it will be repaired or replaced at our expense. This includes parts, labor and U.S. round-trip (ground transportation) shipping, even a shipping carton should you need one. About the only things not covered by this warranty are those losses normally covered by insurance. And this incredible coverage is transferable should you ever decide to sell your amp.

That's not all. For a modest fee, Crown will extend that protection for an additional three years with our 3+3 No-Fault Extended Full Warranty. Now that's commitment to guaranteed excellence.

For additional information on Crown's exclusive warranty program and a copy of the full coverage warranty disclosure, see your Crown dealer or contact Crown direct at 1-800-342-6939.

Crown Microphone Warranty

Crown's professional microphones are guaranteed unconditionally against malfunction from any cause for a period of three years (one year for Sound Grabber) from date of original purchase. Should one of our microphones malfunction, it will be replaced or repaired at our expense, including all U.S. round-trip shipping. This warranty does not cover finish, appearance items, cable or cable connectors. This warranty does not cover normal wear and tear, malfunction due to abuse or operation at other than specified conditions. See your Crown dealer or representative for complete warranty details or contact Crown direct at 1-800-342-6939.

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Amplifier Specifications

Amplifiers	Dual Power Per Channel[1]	Mono Power[2]	Dimensions[3]	Weight	Comments
CE 1000	560 W-2Ω, 450 W-4Ω, 275 W- 8Ω	1,100 W-4Ω, 900 W-8Ω	19 x 5.25 x 13"	32 lbs. 6 oz.	AB+B circuitry; Signal, Fault, Clip indicators; Stereo and Bridge-Mono modes; Neutrik Combo and barrier block input connectors, Neutrik NL4 Speakon output connectors; auxiliary fault jack; front panel level controls; proportional-speed fan
CE 2000	975 W-2Ω, 660 W-4Ω, 400 W-8Ω	1,950 W-4Ω, 1,320 W-8Ω	19 x 5.25 x 13"	40 lbs. 3 oz.	
CP660	75 W-4 Ω, 60 W-8 Ω[4]	150 W each-8 Ω[5]	19 x 3.5 x 12.75"	25 lbs.	Six channels; Push-pull circuitry; Signal, Clip, Temp, Power indicators; Individual channel volume control; Dual/Mono channel combining switch; proportional-speed fan-on-demand
CT-210	150 W-4 Ω, 110 W-8 Ω, 110 W-70 V	300 W-8 Ω, 205 W-140 V	19 x 3.5 x 16"	29 lbs. 7 oz.	
CT-410*	240 W-4 Ω, 220 W-8 Ω, 225 W-70 V	475 W-8 Ω, 455 W-140 V	19 x 3.5 x 16"	31 lbs. 15 oz.	Grounded Bridge circuitry; ODEP, IOC, SPI indicators; 70-V/8/4-ohm mode; Dual, Bridge-Mono and Parallel-Mono modes; three-input sensitivities; balanced barrier block input connectors; three position power switch (local, off, remote); proportional-speed fan-on-demand (forced-air optional for CT-210)
CT-810	490 W-4 Ω, 305 W-8 Ω, 460 W-70 V	975 W-8 Ω, 920 W-140 V	19 x 5.25 x 16"	47 lbs. 4 oz.	
CT-1610	870 W-4 Ω, 540 W-8 Ω, 960 W-70 V	1,745 W-8 Ω, 1,805 W-140 V	19 x 7 x 16"	57 lbs. 14 oz.	
D-45	35 W-4 Ω, 25 W-8 Ω	70 W-8 Ω	19 x 1.75 x 9"	10 lbs.	AB+B circuitry; Power, Signal, IOC indicators; Dual and Bridge-Mono modes; Neutrik combo input connectors; detented front panel level controls; convection cooling
D-75A	55 W-4 Ω, 40 W-8 Ω	110 W-8 Ω	19 x 1.75 x 9"	10 lbs.	
K1	750 W-2 Ω, 550 W-4 Ω, 350 W-8 Ω	1,500 W-4 Ω, 1,100 W-8 Ω	19 x 3.5 x 16"	32 lbs.	Balanced Current Amplifier (BCA) circuitry; TLC, Clip, IOC,Signal indicators; universal power supply; Dual and Bridge-Mono modes; ¼-in. TRS and XLR input connectors; "Y" input, selectable; front panel level controls; convection cooling
K2	1,250 W-2 Ω, 800 W-4 Ω, 500 W-8 Ω	2,500 W-4 Ω, 1,600 W-8 Ω	19 x 3.5 x 16"	38 lbs.	
MA-600	400 W-2 Ω, 325 W-4 Ω, 225 W-8 Ω	750 W-4 Ω, 655 W-8 Ω	19 x 3.5 x 16"	39 lbs. 9 oz.	Grounded Bridge circuitry; ODEP, IOC/SPI indicators; separate power supplies; Dual, Bridge-Mono and Parallel-Mono modes; balanced XLR input connectors; front panel level controls; ground lift switch; forced-air cooling
MA-1200	675 W-2 Ω, 480 W-4 Ω, 310 W-8 Ω	1,300 W-4 Ω, 970 W-8 Ω	19 x 3.5 x 16"	44 lbs.1 oz.	
MA-2400	1,050 W-2 Ω, 800 W-4 Ω, 520 W-8 Ω	2,070 W-4 Ω, 1,585 W-8 Ω	19 x 3.5 x 16"	51 lbs. 12 oz.	
MA-24x6	See MA-2400/MA-600	NA	19 x 3.5 x 16"	45 lbs. 2 oz.	Unique dual channel amplifier for bi-amp applications. Grounded Bridge circuitry; ODEP, IOC/SPI indicators; separate power supplies; Balanced XLR input connectors; front panel level controls; ground lift switch; forced-air cooling
MA-36x12	See MA-3600VZ/MA-1200	NA	19 x 3.5 x 16"	50 lbs. 12 oz.	
MA-3600VZ	1,800 W-2 Ω, 1,565 W-4 Ω, 1,120 W-8 Ω	3,505 W-4ý, 3,140 W-8 Ω	19 x 3.5 x 16"	55 lbs. 4 oz.	3-mode VZ power supply for maximum power matching. Includes all MA Series features
MA-5000VZ	2,500 W-2 Ω, 2,000 W-4 Ω, 1,300 W-8 Ω	5,000 W-4 Ω, 4,000 W-8 Ω	19 x 5.25 x 16"	77 lbs. 13 oz.	
MT-600	400 W-2 Ω, 325 W-4 Ω, 225 W-8 Ω	750 W-4 Ω, 655 W-8 Ω	19 x 3.5 x 16"	36 lbs. 4 oz.	Grounded Bridge circuitry; Enable, ODEP indicators; dual power supplies; Dual, Bridge-Mono and Parallel-Mono modes; three input sensitivities; ground lift switch; forced-air cooling
MT-1200	675 W-2 Ω, 480 W-4 Ω, 310 W-8 Ω	1,300 W-4 Ω, 970 W-8 Ω	19 x 3.5 x 16"	41 lbs. 1 oz.	
MT-2400	1,050 W-2 Ω, 800 W-4 Ω, 520 W-8 Ω	2,070 W-4 Ω, 1,585 W-8 Ω	19 x 3.5 x 16"	46 lbs. 14 oz.	
PT-1	305 W-4 Ω, 220 W-8 Ω	605 W-8 Ω	19 x 3.5 x 16"	30 lbs.	Grounded Bridge circuitry; IOC, SPI indicators; Dual, Bridge-Mono and Parallel-Mono modes; 3 input sensitivities; ¼-in. TRS input connectors; ground isolation switch; front panel level controls
PT-2	460 W-4 Ω, 325 W-8 Ω	910 W-8 Ω	19 x 5.25 x 16"	33 lbs.	
PT-3	760 W-4 Ω, 540 W-8 Ω	1,525 W-8 Ω	19 x 7 x 16"	36 lbs. 8 oz.	
Studio Ref 1	1,190 W-4 Ω, 800 W-8 Ω	2,375 W-8 Ω	19 x 7 x 16"	60 lbs. 11oz.	Grounded Bridge circuitry; Dynamic range/level meters; Dual, Bridge-Mono and Parallel-Mono modes; 20-bit digital capable; damping factor in excess of 20,000
Studio Ref 2	565 W-4 Ω, 360 W-8 Ω	1,145 W-8 Ω	19 x 7 x 16"	56 lbs. 2 oz.	

Specifications are for 120 VAC, 60 Hz units only. Please contact your Crown representative for information on other units.

* European model CT-410 50 Hz unit is 5.25-in. high and weights 38 lbs. 7 oz (17.5 kg)

[1] Power per channel in Dual Mode @ 1 kHz at rated THD, both channels driven.

[2] Power in Bridge-Mono mode @ 1 kHz at rated THD.

[3] Dimensions: Standard rack mount width x height x depth behind mounting surface.

[4] All channels driven.

[5] Six channels bridged, three loads.

Microphone Specifications

Microphones	Frequency Response	Polar Pattern
CM-150	20 Hz to 20 kHz	Omnidirectional
CM-10	60 Hz to 15 kHz	Omnidirectional
CM-30/30W/31/31W	40 Hz to 20 kHz	Supercardioid
CM-200A/CM-200ASW	80 Hz to 15 kHz	Cardioid
CM-310A/CM310ASW	80 Hz to 15 kHz	Differoid
CM-311A/CM-311AHS	50 Hz to 17 kHz	Differoid
CM-312A/CM-312AHS	50 Hz to 17 kHz	Hypercardioid
CM-700	30 Hz to 20 kHz	Cardioid
GLM-100	20 Hz to 20 kHz	Omnidirectional
GLM-200	60 Hz to 20 kHz	Hypercardioid
LM-201	100 Hz to 15 kHz	Supercardioid
LM-300A/300AL/301A	80 Hz to 15 kHz	Supercardioid
MB Series	50 Hz to 15 kHz	Half-Supercardioid
PCC-130/130W	50 Hz to 20 kHz	Half-Supercardioid
PCC-130SW	50 Hz to 20 kHz	Half-Supercardioid
PCC-160/160W	50 Hz to 18 kHz	Half-Supercardioid
PCC-170/170W	50 Hz to 20 kHz	Half-Supercardioid
PCC-170SW/170SWO	50 Hz to 20 kHz	Half-Supercardioid
PZM-6D	20 Hz to 20 kHz	Hemispherical
PZM-10/11	80 Hz to 20 kHz	Hemispherical
PZM-11LL	80 Hz to 20 kHz	Hemispherical
PZM-30D	20 Hz to 20 kHz	Hemispherical
PZM-20R	80 Hz to 20 kHz	Hemispherical
PZM-185	50 Hz to 16 kHz	Hemispherical
SASS-P MK II	20 Hz to 18 kHz	Omnidir. / Low Freq. Unidir. / High Freq.
Sound Grabber II	50 Hz to 16 kHz	Hemispherical

Impedance[1]	Sensitivity	Phantom	Comments
150 ohms	10 mV/Pa	18 - 48 V	Recording/measurement microphone
150 ohms	2.6 mV/Pa	12 - 48 V	Mini omni lapel. Use CM-10E for wireless
150 ohms	10 mV/Pa	12 - 48 V	Designed to hang over choirs, orchestra and stage
150 ohms	3 mV/Pa	12 - 48 V	Hand-held vocal/instrument
150 ohms	1.7 mV/Pa	12 - 48 V	Upclose-maximum gain-before-feedback
150 ohms	4 mV/Pa	18 - 48 V	Differoid headworn microphone
150 ohms	3.8 mV/Pa	18 - 48 V	Hypercardioid headworn microphone
150 ohms	2.5 mV/Pa	12 - 48 V	Studio/P.A./instrument/lectern
150 ohms	3.2 mV/Pa	12 - 48 V	Mini omni instrument mic; use GLM-100E for wireless
150 ohms	6 mV/Pa	12 - 48 V	Mini hypercardioid for instrument
150 ohms	6 mV/Pa	12 - 48 V	Shock isolated lectern microphone
150 ohms	6 mV/Pa	12 - 48 V	Dual gooseneck lectern microphones
150 ohms	22 mV/Pa	18 - 48 V	Unidirectional boundary microphone system
150 ohms	22 mV/Pa	12 - 48 V	Miniature unidirectional boundary microphone
150 ohms	22 mV/Pa	12 - 48 V	Features multi-function membrane switch
150 ohms	22 mV/Pa	12 - 48 V	Unidirectional boundary microphone
150 ohms	22 mV/Pa	12 - 48 V	Unidirectional boundary microphone
150 ohms	22 mV/Pa	24 - 48 V	Features multifunction membrane switch
150 ohms	7 mV/Pa	12 - 48 V	Switchable PZM with flat/rising high frequency response
150 ohms	5 mV/Pa	12 - 48 V	Inexpensive PZM security microphone
75 ohms	1.4 V/Pa	12 - 48 V	Line level security microphone
150 ohms	7 mV/Pa	12 - 48 V	Switchable PZM with flat/rising high frequency response
150 ohms	7 mV/Pa	12 - 48 V	Flush-mount PZM
150 ohms	3.2 mV/Pa	12 - 48 V	Home and video recording
150 ohms	6 mV/Pa	12 - 48 V	Stereo microphone for broadcast and recording
1600 ohms	20 mV/Pa	N/A	Home and video recording

Note: All Crown microphone elements utilize electret condensers.
[1]Nominal impedance - actual impedance may vary.

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